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Date of Deposit March 10, 2004

Our Case No.: 2003P04030US01

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Qinglin Ma et al.

Serial No.: To Be Assigned

Filing Date: Herewith

For: **VOLUME FLOW RATE WITH**

MEDICAL ULTRASOUND

IMAGING

Examiner: To Be Assigned

Group Art Unit No.: To Be Assigned

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents Alexandria, VA 22313-1450

Dear Sir:

In compliance with the duty of disclosure under 37 C.F.R. § 1.56, it is respectfully requested that this Information Disclosure Statement be entered and the documents listed on the attached Form PTO-1449 be considered by the Examiner and made of record. Copies of the listed documents required by 37 C.F.R. § 1.98(a)(2) are enclosed for the convenience of the Examiner.

In accordance with 37 C.F.R. § 1.97(g),(h), this Information Disclosure Statement is not to be construed as a representation that a search has been made and is not to be construed to be an admission that the information cited is, or is considered to be, material to patentability as defined in 37 C.F.R. § 1.56(b).

This Information Disclosure Statement is being filed prior to the receipt of the first Official Action reflecting an examination on the merits and hence is believed to be timely filed in accordance with 37 C.F.R. § 1.97(b). No fees are believed to be due in

connection with filing of this Information Disclosure Statement, however, should any fees under 37 C.F.R. §§ 1.16 to 1.21 be deemed necessary for any reason relating to these material, the Commissioner is hereby authorized to deduct said fees from Brinks Hofer Gilson & Lione Deposit Account No. 23-1925. A duplicate copy of this document is enclosed.

Applicants respectfully request that the listed documents be made of record in the present case.

Respectfully submitted,

Craig A. Summerfield Registration No. 37,947

Attorney for Applicants

BRINKS HOFER GILSON & LIONE P.O. Box 10395 Chicago, IL 60610 (312) 321-4200

FORM PTO-1449	SERIAL NO.	CASE NO.
	To Be Assigned	2003P04030US01
LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE	FILING DATE	GROUP ART UNIT
STATEMENT	Herewith	To Be Assigned
(use several sheets if necessary)	APPLICANT(S): Qinglin Ma, et a	al.

REFERENCE DESIGNATION

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER Number-Kind Code (if known)	DATE	NAME	CLASS/ SUBCLASS	FILING DATE
	A1	5,085,220	02/04/1992	Nudell et al.		
	A2	5,675,554	10/07/1997	Cole et al.		
	A3	5,555,534	09/10/1996	Maslak et al.		
	A4	5,685,308	11/11/1997	Wright et al.		
	A5	5,617,865	04/08/1997	Palczewska et al.		
	A6	5,394,876	03/07/1995	Ma		
	A7	6,293,914	09/25/2001	Sumanaweera et al.		
	A8	5,967,987	10/19/1999	Sumanaweera et al.		*
	A9	6,544,181	04/08/2003	Buck et al.		

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER Number-Kind Code (if known)	DATE	COUNTRY	CLASS/ SUBCLASS	TRANSLATION YES OR NO
"					

EXAMINER	OTHER ART – NON PATENT LITERATURE DOCUMENTS			
INITIAL		(Include name of author, title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published.		
	A10	"Determination of Cardiac Output in Critically III Patients by Dual Beam Doppler		
		Echocardiography," by David S. Looyenga et al.; 1989 by the American College of Cardiology; JACC Vol. 13, No. 2, February 1989; pgs. 340-7.		
	A11	"Blood Flow Measurement Using the Attenuation-Compensated Volume Flow Meter," by Charles F. Hottinger and James D. Meindl Department of Electrical Engineering Stanford, CA 94305; 1976 by Academic Press, Inc.; Ultrasonic Imaging, Vol. 1, No. 1, 1979; pgs. 1-15.		
	A12	"Measurement of Blood Flow Volume Rate by Doppler Ultrasound," by Jonathan M. Evans - A Thesis submitted to the University of Bristol in Accordance with the Requirement for the Degree of Doctor of Philosophy in the Faculty of medicine Department of Radiodiagnosis; dated July 1987.		
	A13	"Scattering of Ultrasound by Blood," by Shung, K.K., R.A. Sigelemann, J.M. Reid; IEEE Transactions on Biomedical Engineering; November 1976, Vol. BME-23, Number 6; pgs. 460-467; Publication of the IEEE Engineering in Medicine and Biology Group.		
	A14	"Cardiovascular Applications of Ultrasound," Proceeding of an International Symposium held at Janssen Parmaceutica, Beerse, Belgium on May 29 and 30, 1973; Editor Robert S. Reneman, M.D.; North-Holland Publishing Company-Amsterdam, London American Elsevier Publishing Company, Inc New York 1974.		

EXAMINER	DATE CONSIDERED	

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Page 2 of 2

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(use several sheets if necessary)	APPLICANT(S):	Qinglin Ma, et a	1.

EXAMINER INITIAL		OTHER ART – NON PATENT LITERATURE DOCUMENTS nclude name of author, title of the article (when appropriate), title of the item (book, magazine, journal, serial, nposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published.
	A15	"Backscattered Power in Doppler Signals," Ultrasound in Med and Biol. (Letters), 1983; Luckman, N. P., J. M. Evans, R. Skidmore, J.D. Baker and P. N. T. Wells.
	A16	"Pulsed Doppler: Determination of Diametr, Blood Flow Velocity and Volumic Flow of Brachial Artery in Man," Cardiovascular Research," Editor R. J. Linden and Assistant Editor DASG Mary; Vol. 15, 1981; London, British Medical Association, Tavistock Square; Cardiovasc Res 15, pg. 164-170.
	A17	"Noninvasive Doppler Determination of Cardiac Output in Man: Clinical Validation," Circulation 67 - An Official Journal of the American Heart Association, Inc.; dated March 1983; Vol. 67 and No. 3; pgs. 593-602.
	A18	"How Far Is The Cardiac Output," by N.E. Haites, F. M. McLennan, D. H. Mowat and J. M. Rawles; The Lancet, November 3, 1984; pgs. 1025-1027.
	A19	"Measurement of Instantaneous Blood-Flow Velocity in the Human Aorta Using Pulsed Doppler Ultrasound," by R. W. Gill; Cardiovasc Res 16, pgs. 26-33; dated 1982.
	A20	"Measurement of Blood Flow Using Ultrasound," by J. M. Evans, R. Skidmore, J.P. Woodcock, and P. N. Burns; Acoustical Imaging, Vol. 12, pgs. 539-46, 1982.
-	A21	"A Theoretical Study of the Scattering of Ultrasound From Blood," by B.A.J. Angelsen; IEEE Trans Biomed Eng BME - 27, pgs. 61-67, 1980.

EXAMINER	DATE CONSIDERED	

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